



PRESIDENCY UNIVERSITY

BENGALURU

Roll No.														
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Mid - Term Examinations JUNE-2025

Date: 03- 06-2025

Time: 09:30 am – 11:00 pm

School: SOIS	Program: MCA	
Course Code : CSA4037	Course Name: Social Network Analysis	
Semester: II	Max Marks: 50	Weightage: 25%

CO - Levels	C01	C02	C03	C04	C05
Marks	41	49			

Instructions:

- (i) Read all questions carefully and answer accordingly.
- (ii) Do not write anything on the question paper other than roll number.

Part A

Answer ALL the Questions. Each question carries 2marks.

5Q x 2M=10M

1	What is meant by 'degree' in a social network graph?	2 Marks	L1	C01
2	Define a signed network with an example.	2 Marks	L1	C01
3	Outline the key features of visualization tools commonly used in SNA	2 Marks	L2	C01
4	Explain how to calculate the total in-degree and out-degree in a directed network.	2 Marks	L2	C02
5	What is the diameter of a network? Give an example.	2 Marks	L1	C02

Part B

Answer the Questions.

Total Marks 40M

6.	a.	Explain the terms: nodes, edges, directed and undirected graphs in the context of SNA.	5 Marks	L2	CO1
	b.	Explain any five real-world applications of Social Network Analysis.	5 Marks	L2	CO1
Or					
7.	a.	What is the Link-centric perspective in network analysis? Discuss its types and how it compares to the Node-centric perspective.	10 Marks	L2	CO1

8.	a.	Illustrate in detail local view and temporal view of network with an example.	10 Marks	L2	CO1
	b.	What are some practical applications of Social Network Analysis in the fields of education, politics, or public health? Explain with an example.	5 Marks	L2	CO1
Or					
9.	a.	Describe and differentiate between walk, trail, path, and cycle in a graph. Illustrate each with a suitable figure.	10 Marks	L2	CO2
	b.	Explain the Preferential Attachment Model with a detailed example.	5 Marks	L2	CO2

10.	a.	Explain the major properties of real-world networks with suitable examples.	10 Marks	L2	CO2
	b.	With suitable examples, explain the concepts of shortest path, distance, and network diameter.	5 Marks	L2	CO2
Or					
11.	a.	What is meant by a Network Model with Accelerating Growth? Explain with an example.	10 Marks	L2	CO2
	b.	Explain the concept of degree distribution. Discuss how it helps in characterizing the structure of real-world networks.	5 Marks	L2	CO2